

PRIMERGY T850

System Configurator and Order Information Guide

October 2003

Contents

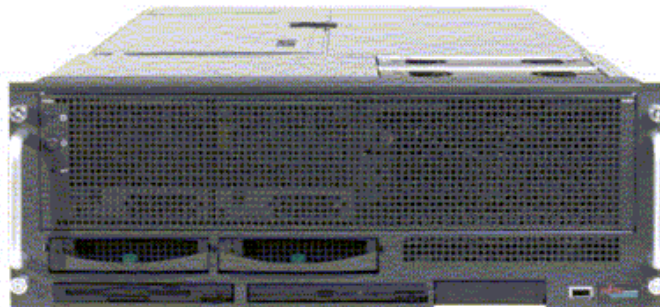
Instructions

Configuration diagram

Configurator

- 0 System software
- I Basic unit
- II Processor
- III Memory
- IV Graphics
- V Accessible drives
- VI Hard disk drives
- VII SCSI / Fibre Channel controller
- VIII Disk Array
- IX Communication / Network
- X System Management Products (RemoteView)
- XI Miscellaneous
- XII PCI Extension Box
- XIII SCSI / Fibre Channel controller for PCI Extension Box
- XIV Disk Array for PCI Extension Box
- XV Communication / Network for PCI Extension Box
- XVI Communication / Network for PCI Extension Box

Change report



PRIMERGY Server

Instructions

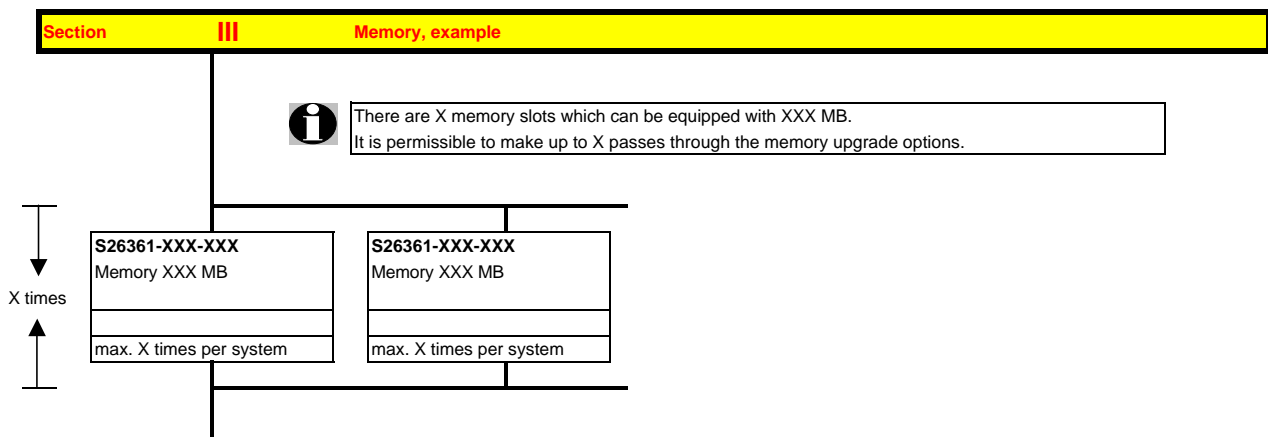
This document contains basic product and configuration information that will enable you to configure your system via PC-/ SystemArchitect.

Only these tools will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.

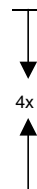
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

The System configurator is divided into several chapters that are identical to the current price list and PC-/ SystemArchitect.

Please follow the lines. If there is a junction, you can choose which way or component you would like to take. Go through the configurator by following the lines from the top to the bottom.



In one chapter you can only select as many components (here 4x) as the arrow indicates.



Please note that there are information symbols which indicate necessary information.



Further information in the internet see:

<http://www.primergy.com> (internet)

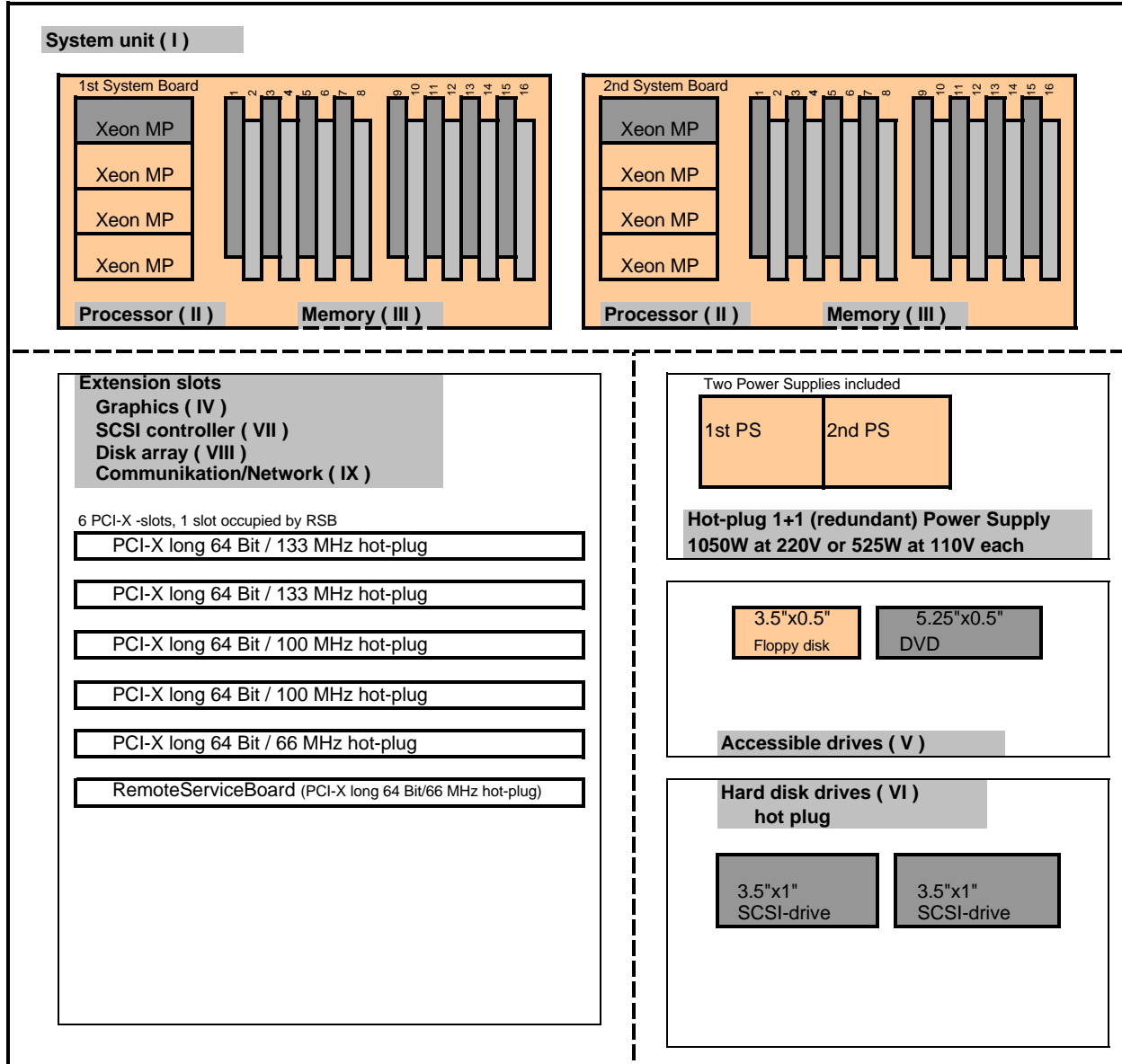
<http://extranet.fujitsu-siemens.com/primergy> (extranet)

Prices and availability see price list and PC-/ SystemArchitect.
 Subject to change and errors excepted.

Configuration diagram PRIMERGY T850

TOP VIEW

FRONT/REAR VIEW



Start "PRIMERGY T850"

SW Configurator

with OEM-Software
for PRIMERGY Server

without OEM-Software
for PRIMERGY Server

Vmware-Software
 - ESX Server 1.5 (OEM)
 - ESX Server 2.0 (OEM)(planned)
 - Virtual SMP for ESX 2.0 (OEM)



Microsoft does not allow the use of OEM-software under ESX. Distributions-/ retailware is allowed.

Later use of OEM operating system software is not allowed, apart from OEM software by VMware and F5



For all SW products listed below please refer to the corresponding software configurator accessible via the Extranet under "PC Configurations, Configurator for PRIMERGY SW", URL see below.

MS - Software: W **)
 - Windows 2000 Server
 - Windows 2000 Advanced Server
 - Windows 2000 Data Center Server (only for certified systems)
 - Windows Server 2003, Standard Edition
 - Windows Server 2003, Enterprise Edition

PRIMECLUSTER *)
 - Clustering
 - Load Balancing

Linux - Software: **)
 - SuSE Linux Enterprise Server: S
 - SuSE Professional Linux
 - Red Hat Enterprise Linux
 - Red Hat Professional Linux

CITRIX-Software für NT: W1
 - Multiuser SW MetaFrame
 - LoadBalancing
 - Additional User Licences

MultiPath, Duplex Data Manager for NT; W2K; Linux

easy Mirror for Linux NT 4, WIN 2000

FSC System Management Software: V
 - RemoteView Software
 - RemoteView Service Board
 - RemoteView Diagnosis



*) Pay attention to release information on datasheet under <http://www.primecluster.com>



**) Pay attention to release and order information in PRINCE -> Operating System http://vil.mch.fsc.net/vil/pc/vil/primergy/overview/prince/index_en.htm

Backup-Software: U
 - ARCserve for NT

You'll find single software configurators and release lists (OS-matrix / system management / security) under following addresses:

for internal users:

http://vil.mch.fsc.net/vil/oec/special/primergy/index_en.htm

for partners:

http://vilpart.fujitsu-siemens.de/vil/oec/special/primergy/index_en.htm

Continue with PRIMERGY HW configurator

**System unit consisting of:***** 4U rack mountable housing incl. 2 hot plug power supply modules redundant**

- temperature sensor for CPU module and FSC PDA function

*** 4 hot replace fans***** Drives / Bays**

- 1 drive bay 3.5"/0.5" high (occupied by 1 floppy disk)
- 1 drive bay 5.25"/0.5" high (occupied by 1 DVD-ROM)
- 2 bays for 1" hard disks
- 6 slots PCI-X 64 Bit (2x 133 MHz, 2x 100 MHz, 2x 64 MHz, (1x occupied by 1 RemoteView serviceboard))

Systemboard, to upgrade to 4 or up to 8 processors with:

- 2x Xeon processors, 100 MHz quad-pumped FSB
- 2-channel U160 SCSI controller on-board
- graphics processor on board 8 MB (PCI)
- LAN Controller 10/100/1000 on-board
- Fast-IDE controller (for DVD-ROM)
- RemoteView Serviceboard in a PCI slot

External Interfaces:

- 1x RS-232-C (serial, 9 pin)
- 1x keyboard (PS/2)
- 1x mouse (PS/2)
- 1x VGA (15 pin)
- 3x USB UHCI (1x front side)
- 1x LAN RJ45
- 3x SMP Interconnect
- 1x PCI extension
- 1x SCSI U160 (UHD68)

Cables:

1. IDE cable for CD/DVD
2. U160 SCSI cable for connection of the HD backplane
3. Power cord

Software:

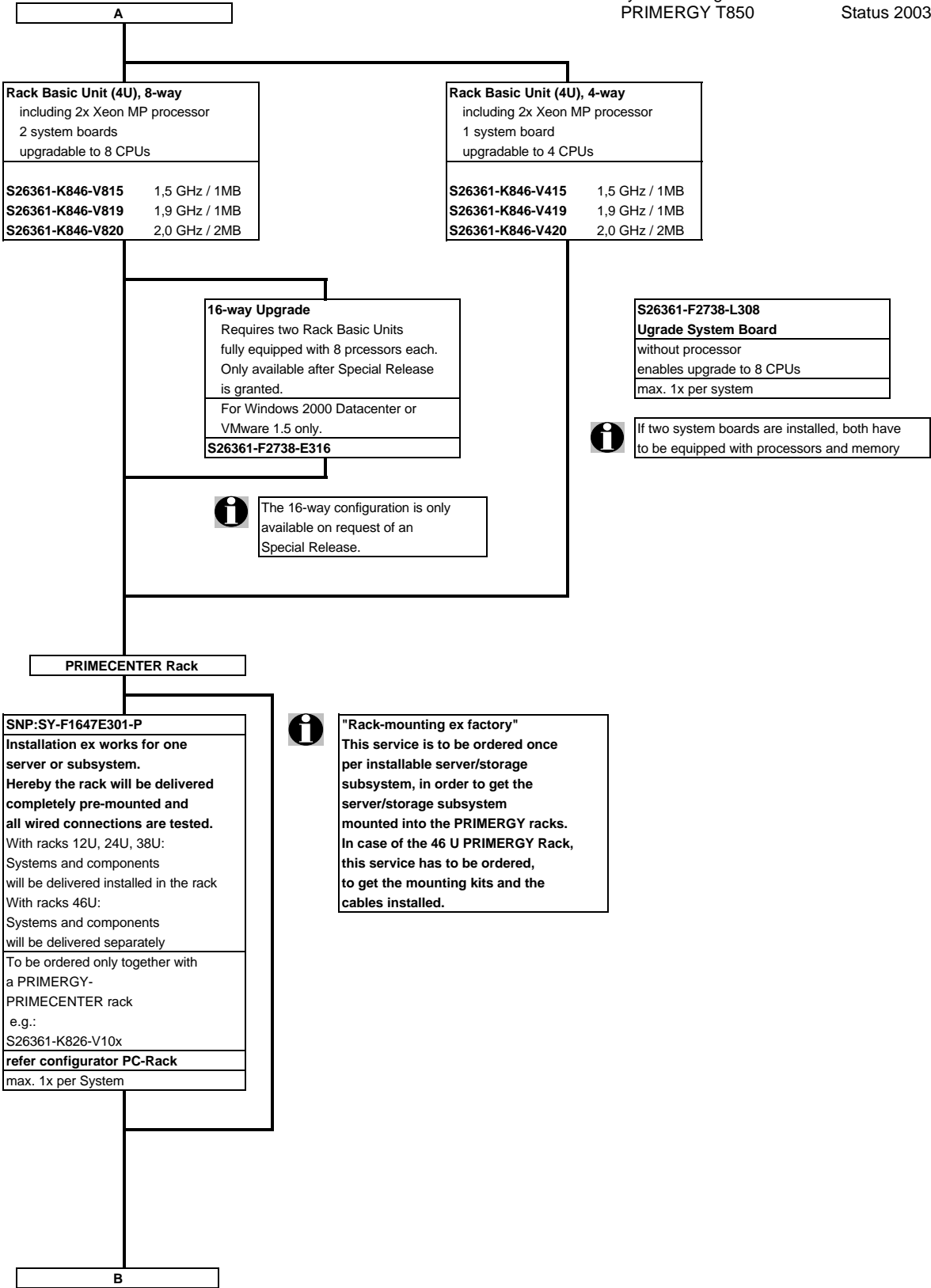
- ServerStart packet incl. ServerBooks CD, ServerSupport CD and ServerView

**Mounting kit for PRIMERGY T850 is part of the basic unit**

- 1 pair of telescopic rails (710-815mm)
- 1 pair of carrier rails
- 1 bracket PC-Rack
- 1 cable management PC-racks

**Mounting kit for mounting of servers in in FSC 19" PRIMECENTER- racks
and all server racks conforming to EIA standard EIA-310-D for 19" racks.**

Therefore the mounting kit is variable in depth from 710-815mm



B

Section II Processor



The PRIMERGY T850 can carry up to 2 system boards.
 The basic units include either one or two system boards.
 Please note that the basic units already includes two processors.
 Each system board requires at least 1 processor can be upgraded to max. 4 processors.

Only processors with the same clock frequency and the same third level cache (TLC) can be used.
 Terminators are automatically included if necessary.

For a multi-processor system a multi-processor operating system is required.
 Important: The necessary operating system license depends possibly on the number of the processors,
 e.g. with Windows 2000 Datacenter and the pertinent update subscription.
 Also with additional processor armaments it can be that the licensed CPU number is exceeded.
 Then an appropriate license must be ordered. See also for this W2k Datacenter Product Facts, chapter 5

<p>S26361-F2740-E151 XEON MP 1,5GHz with 1 MB TLC on Chip, heat sink</p> <hr/> <p>occupies slot for one CPU max. 2x for 1 system board max. 6x for 2 system boards</p>	<p>S26361-F2740-E191 XEON MP 1,9GHz with 1 MB TLC on Chip, heat sink</p> <hr/> <p>occupies slot for one CPU max. 2x for 1 system board max. 6x for 2 system boards</p>	<p>S26361-F2740-E202 XEON MP 2GHz with 2MB TLC on Chip, heat sink</p> <hr/> <p>occupies slot for one CPU max. 2x for 1 system board max. 6x for 2 system boards</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

C

C

Section III Memory



There are 16 memory slots available (4 banks with 4 modules each) on each system board.
 Mixing different modules within a bank is not support,
 therefore only complete banks with 4 modules are offered
 Each system board must be pupolated with at least 1 bank

 Memory mirroring functionality is possible as an option between banks

max. 4x
per
system
board

S26361-F2741-E142
Main memory 2.048 MB
133 MHz Registered SDRAM
consisting of 4 modules
occupies one bank
max. 4x per system board

S26361-F2741-E144
Main memory 4.096 MB
133 MHz Registered SDRAM
consisting of 4 modules
occupies one bank
max. 4x per system board

Section IV Graphics

Graphics controller other than the 8MB on-board controller (S3 Savage4) are not tested and released.

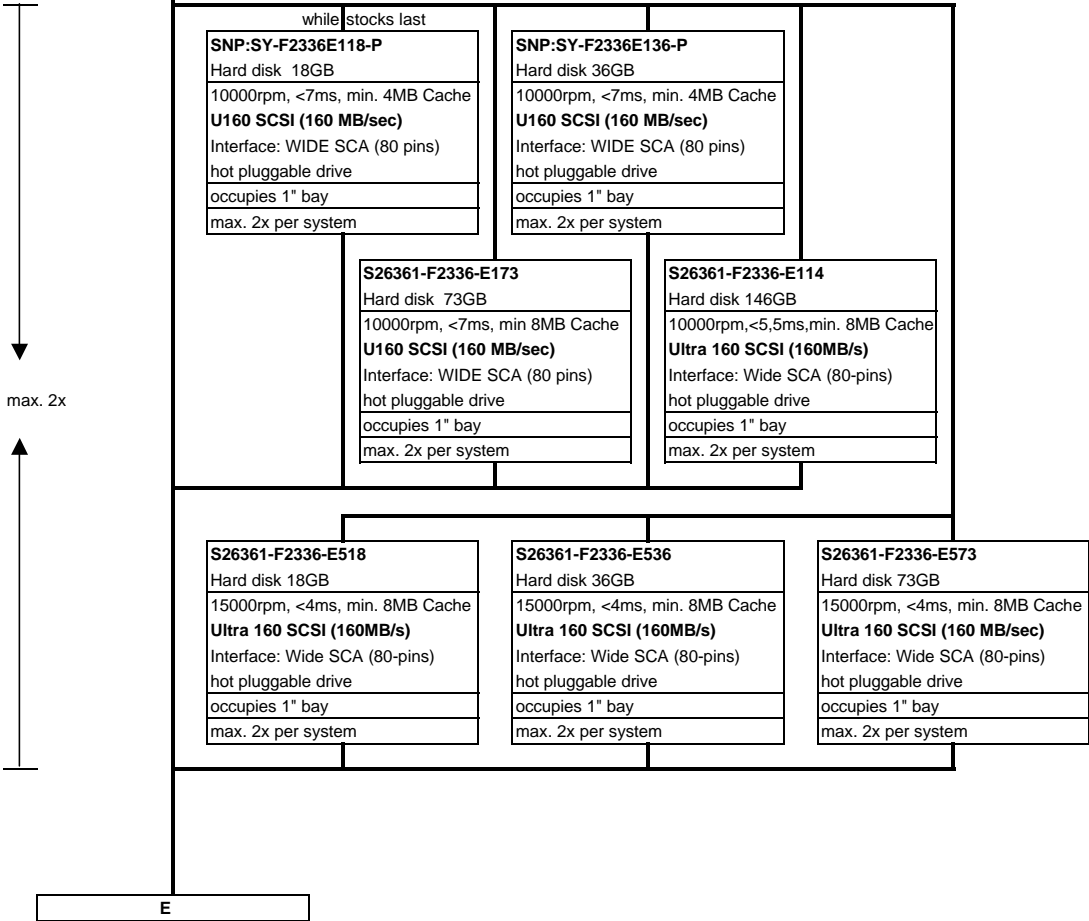
D

D

Section V Accessible Drives

The Basic Unit includes one Floppy Disk and one DVD Drive.
 Other integrated accessible drives are not supported.

Section VI Hard Disk Drives



E

Section VII SCSI/Fibre Channel Controller

Inclusive
 The 2nd channel of the Dual-on-board U2W-SCSI controller can be used for external drives
 Included in the basic and system units.

i The two HD SCSI drives are connected to one on-board SCSI channel.
 The second on-board SCSI channel can be used for external devices.

Controller for the connection of an external storage system:

S26361-F2399-E1
 SCSI 160 controller
 Adaptec SCSI card 29160
 1 channel: LVD+Fast/Ultra (decoup.)
 LVD con. for HD, without cable
 Fast/Ultra con. access. drives
 64/66 (32/33) PCI, min. 180mm
 int: Fast 50-pin or Ultra HD68
 + LVD HD68; ext: HD68(LVD)
 SW:
 max. 2x per system

i not released for VMware ESX Server

Fibre Channel controller for subsystems and SAN

<p style="text-align: right;">while stocks last</p> <p>SNP:SY-F2244E1-A 1Gbit/s FC Controller Qlogic QLA 2200 1 Channel 1Gbit/sec FC Controller CU (copper) Interface incl. SW and description (Ger/US) PCI 64Bit / 66MHz, 175mm 3.3V and 5V tolerant signaling max. 4x per system</p>	<p style="text-align: right;">while stocks last</p> <p>SNP:SY-F2244E2-A 1Gbit/s FC Controller Qlogic QLA 2200F 1 Channel 1Gbit/sec FC Controller MMF (Multimode Fibre) Interface incl. SW and description (Ger/US) PCI 64Bit / 66MHz, 175mm 3.3V and 5V tolerant signaling max. 4x per system</p>
<p style="text-align: right;">while stocks last</p> <p>S26361-F2843-E1 2Gbit/s FC Controller Emulex LP9802 1 Channel 2Gbit/sec FC Controller LC Interface for 50um Fiber PCI 64Bit / 133MHz, 170mm 3.3V and 5V tolerant signaling max. 4x per system</p>	<p style="text-align: right;">while stocks last</p> <p>S26361-F2624-E1 2Gbit/s FC Controller Emulex LP9002L 1 Channel 2Gbit/sec FC Controller LC Interface for 50um Fibre PCI 64Bit / 66MHz, 170mm 3.3V and 5V tolerant signaling max. 4x per system</p>

4x

i Attention
 2Gbit/s FC Controller require other interface connectors for the optical cables than 1Gbit/s fibre channel.

i There are other components such as switches, GBICs or cables which can be ordered for fibre channel SAN attachments. (see price list)

i All controllers for the connection of external storage systems are delivered without cables.
 For the configuration of external cabling see the configurator for external storage systems.
 All internal cables and adapters are included within the basic units and components respectively.

F

F

Section VIII Disk Array

i Mixing DPT/Adaptec and Mylex / LSI controllers is not supported

1-channel Ultra 160 SCSI controller for internal and external hard disks

S26361-F2406-E16
1-channel RAID Controller U160
Mylex / LSI
AcceleRAID 160 (Bobcat)
16MB EDO Cache
without BBU
Connector: int. HD68;
ext. VHDCI
without external cable
incl. SW and description (G/US)
32/33 PCI controller, 180mm
3.3V and 5V tolerant signaling
max. 1x per system

i not released for VMware ESX Server

2-channel Ultra 160 SCSI controller for external hard disks

S26361-F2385-E32
2-channel RAID Controller U160
Adaptec
3200 S
32MB SDRAM ECC Cache
BBU optional
Connector: ext. 2x VHDCI
without cable
incl. SW and description (G/USA)
64/33 PCI controller, 330mm
3.3V and 5V tolerant signaling
max. 5x per system

S26361-F2569-E64
2-channel RAID Controller U160
Mylex / LSI
AcceleRAID 352 (Leopard)
64MB SDRAM ECC Cache
BBU optional
Connector: ext. 2x VHDCI
without cable
incl. SW and description (G/USA)
64/33 PCI controller, 330mm
3.3V and 5V tolerant signaling
max. 4x per system

5x

5x

S26361-F2386-E10
RAID Ctrl, Battery Backup Unit
max. 1x per controller

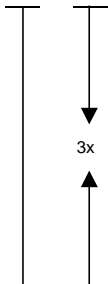
S26361-F2569-E10
RAID Ctrl, Battery Backup Unit
max. 1x per controller

i The cables for the connection of the RAID controller to the disks in the system are included within the basic unit.
 The cables of the connection from the subsystems (SX30) to the RAID controllers, see configurator SX30.

G

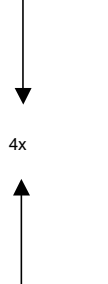
G

Section IX Communication, Network Controller



S26361-F2732-E1
Gigabit Ethernet Contr. 1000SX
Intel Pro/1000 XF Server Adapter
Adapter Teaming Support
PCI-X (all PCI slots), min 163 mm
Connector: ext. Duplex SC
SW: VLAN, Fast Etherchannel
max. 3x per system

S26361-F2730-E1
Gigabit Ethernet Contr. 1000TX
Intel Pro/1000 XT Server Adapter
Adapter Teaming Support
PCI-X (all PCI slots), min 163 mm
Connector: RJ45
Connection with Cat 5 Cabling
SW: VLAN, Fast Etherchannel
max. 3x per system



S26361-F2643-E1
Fast Ethernet Contr. 10/100TX
Intel Pro 100 Server Adapter
AFT under NT und NW also with on-board LAN, WOL, load bal.
32/33 PCI, min. 120 mm
ext: for RJ45-plug
SW: VLAN, Fast Etherchannel
max. 4x per system

i not released for VMware ESX Server

S26361-F2606-E1
Fast Ethernet dual 10/100TX IPsec
Intel Pro 100S Dual Port Server Adapter, with IPsec 3DES
AFT under NT, W2k, NW incl. onb. LAN, WOL, load bal.
64/66 bit PCI, min 120 mm
Connector: ext. 2x RJ45
SW: VLAN, Fast Etherchannel
max. 2x per system

i not released for VMware ESX Server

i IPsec with 3DES (156 bit key) has export restriction for several countries. No restriction to countries of the EU and:

- Australia,
- Canada,
- Czech Republic,
- Hungary
- Japan,
- New Zealand,
- Norway,
- Poland,
- Switzerland,
- United States

while stocks last

S26361-F2117-E502
Token Ring Controller
Smart Ringnode MK4
100/16/4 Mbit, Madge
AFT (NT4, W2K) mit 2 Ctrl, 2 redundant rings with 4 ctrl
32/33 PCI, min. 164mm
Connector: ext.1x RJ45, 1x SUB-D9
SW:
max. 2x per system

i not released for VMware ESX Server

H

H

Section X System Management Products

Inclusive in Basic Unit
RemoteView Service Board
occupies 1 PCI slot
max. 1x per system



RemoteView external Power Supply
S26361-F2425-L300
incl. power cord (with cold device- and Euro plug)

I

I

Section XI Miscellaneous

S26361-F1652-L4
 Modem external 56kbps (V.90)
 MultiTech
 MT5643ZBA-Global
 international approval
 incl. 2m Telephone cord RJ11/RJ11
 Adapter Plug RJ11/TAE
 Serial Interface cable DB25m / DB9f
 AC-Adapter w. German Power Cord
 occupies one COM port
 max. 1x per system
needed for RemoteView

i In connection with rack configurations the install variant of the modem (S26361-F1652-E4) has to be ordered (see rack configurator)

i **Options and other peripherals**
 For other options, refer to separate "Product specific options"
 These options are supplied lose with the shipment
 For suitable peripherals for this product, please refer to the section "Peripherals/communication"

i **Country specific power cords are not required for rack versions, except for USA&Canada. Power cords are shipped in a rack version with inlet connector for non-heating apparatus. Description in english. Both included in basic unit. (1x with Standard PSU, 3x with hot plug upgrade)**

i **T26139-Y1742-L10 USA, Canada**
 For shipments to USA&Canada, you have to order one power cord (1,8m, grey) per power supply.

Section XII PCI Extension Box

PCI Extension Box (3U)
 Upgrade from 6 to 12 PCI-X slots
 max. 1x pro System
S26361-K874-V406

PCI Extension Box Upgrade
 Upgrade from 12 to 18 PCI-X slots
 max. 1x per PCI Extension Box
S26361-F2739-E412

End of PRIMERGY T850

SNP:SY-F1647E301-P
Installation ex works for one server or subsystem. Hereby the rack will be delivered completely pre-mounted and all wired connections are tested.
 With racks 12U, 24U, 38U:
 Systems and components will be delivered installed in the rack
 With racks 46U:
 Systems and components will be delivered separately
 To be ordered only together with a PRIMERGY-PRIMECENTER rack
 e.g.:
S26361-K826-V10x
refer configurator PC-Rack
 max. 1x per System

i **"Rack-mounting ex factory"**
 This service is to be ordered once per installable server/storage subsystem, in order to get the server/storage subsystem mounted into the PRIMERGY racks. In case of the 46 U PRIMERGY Rack, this service has to be ordered, to get the mounting kits and the cables installed.


J

J


Section VII SCSI/Fibre Channel Controller for PCI Extension Box


Controller for the connection of an external storage system:

S26361-F2399-E1
SCSI 160 controller
Adaptec SCSI card 29160
1 channel: LVD+Fast/Ultra (decoup.)
LVD con. for HD, without cable
Fast/Ultra con. access. drives
64/66 (32/33) PCI, min. 180mm
int: Fast 50-pin or Ultra HD68
+ LVD HD68; ext: HD68(LVD)
SW:
max. 2x per system

 not released for VMware ESX Server

S26361-F2843-E1
2GBit/s FC Controller
Emulex LP9802
1 Channel 2GBit/sec FC Controller
LC Interface for 50um Fiber
PCI 64Bit / 133MHz, 170mm
3.3V and 5V tolerant signaling
max. 4x per system


 There are other components, too, such as switches, converters or cables which can be ordered for the fibre channel (see price list)

 All controllers for the connection of external storage systems are delivered without cables. For the configuration of external cabling see the configurator for external storage systems. All internal cables and adapters are included within the basic units and components respectively.

K


K

Section VIII Disk Array for PCI Extension Box

 Mixing DPT/Adaptec and Mylex / LSI controllers is not supported

S26361-F2569-E64
2-channel RAID Controller U160
Mylex / LSI
AcceleRAID 352 (Leopard)
64MB SDRAM ECC Cache
BBU optional
Connector: ext. 2x VHDCI
without cable
incl. SW and description (G/USA)
64/33 PCI controller, 330mm
3.3V and 5V tolerant signaling
max. 5x per system

S26361-F2569-E10
RAID Ctrl, Battery Backup Unit
max. 1x per controller

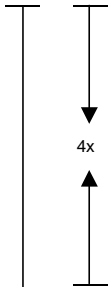
 The cables of the connection from the subsystems (SX30) to the RAID controllers, see configurator SX30.

L

L

Section IX Communication, Network Controller for PCI Extension Box

i Please note that the maximum number of controllers indicated here applies to the total sum of controllers in the Basic Unit and the PCI Extension Box.



S26361-F2732-E1
Gigabit Ethernet Contr. 1000SX
Intel Pro/1000 XF Server Adapter
Adapter Teaming Support
PCI-X (all PCI slots), min 163 mm
Connector: ext. Duplex SC
SW: VLAN, Fast Etherchannel
max. 4x per system

S26361-F3011-E1
Gigabit Ethernet Contr dual 1000TX
Intel Pro/1000MT dual Server Adapter
Adapter Teaming Support
PCI-X (PCI64/66), min 163 mm
ext: for RJ45-plug, Cat 5 connection with Cat 5 cabling
SW: VLAN, Fast Etherchannel
max. 4x per system



S26361-F2643-E1
Fast Ether. Contr. 10/100TX
Intel Pro 100 Server Adapter
AFT under NT, W2k, NW also with on-board LAN, WOL, load bal.
32/33 Bit PCI, min 120 mm
ext: for RJ45-connector
SW: VLAN, Fast Etherchannel
max. 4x per system

i not released for VMware ESX Server

S26361-F2606-E1
Fast Ethernet dual 10/100TX IPsec
Intel Pro 100S Dual Port Server Adapter, with IPsec 3DES
AFT under NT, W2k, NW also with on-board LAN, WOL, load bal.
64/66 bit PCI, min 120 mm
ext: for 2 x RJ45-connector
SW: VLAN, Fast Etherchannel
max. 2x per system

i not released for VMware ESX Server

i IPsec with 3DES (156 bit key) has export restriction for several countries.
 No restriction to countries of the EU and:

- Australia,
- Canada,
- Czech Republic,
- Hungary
- Japan,
- New Zealand,
- Norway,
- Poland,
- Switzerland,
- United States

End of PRIMERGY T850 with PCI Extension Box

